

## NEW SPECIES AND RECORDS OF AUSTRALIAN COLLEMBOLA.

By H. WOMERSLEY, F.R.E.S., A.L.S.,  
Entomologist, South Australian Museum.

[Read August 12, 1937.]

## ARTHROPLEONA.

Genus *Tasmanura*, nov.

*Description*—Broad, flat species with prominent lateral paratergites. Cuticle strongly and finely tuberculate. Antennae short, third and fourth segments indefinitely separated, IV with trilobed apical knob. Eyes, eight on each side; post-antennal organ present, with four peripheral lobes. Empodial appendage and clavate tibiotarsal hairs wanting. Furca reduced, stump-like; mucrones absent. Mandibles without molar plates. Supra-anal valve not bilobed.

*Remarks*—This genus is closely related to *Platanurida* Carpenter from New Zealand but differs in the number of eyes, the reduced furca and the form of the postantennal organ.

*Tasmanura evansi*, sp. nov.

(Text fig. 1, a-f.)

*Description*—Length, 1.5 mm.; width, 0.8 mm. Dorsally rather flattened with prominent lateral paratergites. Eyes, eight on each side, in a circular cluster (cf. fig. 1, b); postantennal organ with four triangular lobes. Antennae short, segments III and IV indistinctly differentiated, IV with trilobed apical knob, sensory organ on III as in fig. 1 c, IV with apparently few differentiated olfactory hairs. Legs with strong claws with a basal inner tooth; empodial appendage absent; tibiotarsal hairs not clavate. Furca present but reduced, dentes short and stump-like with three strong subapical hairs, mucrones absent, tenaculum as figured. Cuticle strongly granular, with sparse short fine pointed setae. Colour, bluish.

*Locality*—A single specimen collected by Mr. J. W. Evans in the National Park, Tasmania, at 3,000 feet, in December, 1936.

## ACHORUTES MUSCORUM Templeton, 1843.

I have recently received from Mr. Evans a specimen of this European species, collected from leaf mould at Hobart, Tasmania, in July, 1937. Although known to occur in New Zealand, it has not previously been recorded from Australia.

## LEPIDOPHORELLA BRACHYCEPHALA (Mz.).

Several specimens collected at Risdon, Tasmania, May 19, 1937, by Mr. V. V. Hickman.

## TOMOCERUS VULGARIS Tullbg., 1871.

A single specimen of this European species has been sent to me from Tasmania. It was obtained by Mr. J. W. Evans in leaf mould at Hobart in July, 1937.

*Tomocerus tasmanicus*, sp. nov.

(Text fig. 1, g-j.)

*Description*—Length, 5-6 mm. Colour, brownish; denuded of scales, yellowish. Antennae nearly three times as long as head diagonal, ratio of segments I : II : III : IV = 1 : 2¼ : 4 : 3½, III and IV annulated. Ratio of

abdominal and thoracic segments = th. I : II : abd. I : II : III : IV : V : VI = 25 : 10 : 8 : 8 : 29 : 9 : 5 : 3. Eyes, 6 + 6; heavily pigmented. Claws with strong latero-basal teeth and one inner basal tooth; empodial appendage long and finely tapering; tibiotarsal hairs not clavate. Furca long, reaching ventral tube, ratio of manubrium : dentes : mucro = 30 : 37; 4; dental spines as figured, mucro with long hairs and dentition as shown. Scaling normal for the genus.

*Locality*—Type specimen from National Park, Tasmania, at 3,500 feet, in December, 1936 (J. W. E.); other specimens from Lcnah Valley, Tasmania, May, 1937 (V. V. H.).

*Remarks*—This species very closely resembles that described by Denis (1928) as *brevimucronatus* from the Oregon Caves, U.S.A. It differs, however, in the

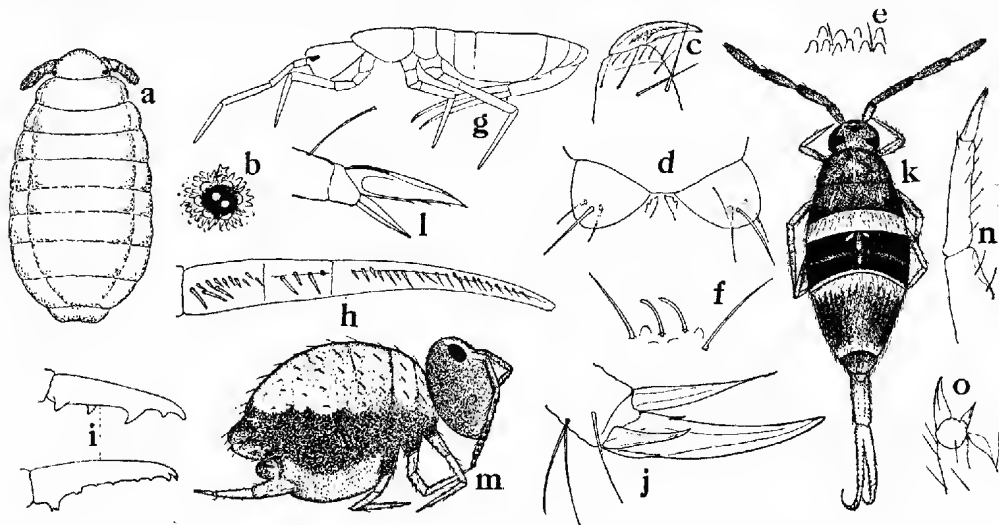


Fig. 1.

- a-f. *Tasmanura evansi*, g. et. sp. nov.: a, dorsal entire view; b, eyes; c, claw, d, furca; e, dorsal cuticle and setae; f, sensory organ of antenna III.  
 g-j. *Tomocerus tasmanicus*, sp. nov.: g, lateral view; h, dental spines; i, mucrones of type specimen; j, claw and empodial appendage.  
 k. *Entomobrya termitophila* v. *clarki*, nov.: dorsal view.  
 l. *Acanthurella halei*, sp. nov.: claw and empodial appendage.  
 m-o. *Arrhopalites gloriosa*, sp. nov.: m, lateral view; n, furca from side; o, claw and empodial appendage.

larger ratio of the mucro to the dentes, in the arrangement of the dental spines and in the ratio of the antennal segments, especially III and IV. In the new species, segment III of the antennae is only slightly longer than IV, while in Denis' form it is many times longer. In the same paper Denis, under the species *Tritomurus oregonensis*, discusses the two genera *Tomocerus* Nic. and *Tritomurus* Frauenfd. and rather doubts the generic separation of *Tritomurus* from *Tomocerus*. It is regarded as differing only in the absence of eyes and of the clavate tibiotarsal hair. In the new species above described the absence of a clavate tibiotarsal hair places it between the two genera and would support the idea of Denis that separation of the two genera is unnecessary.

Apart from the two introduced European forms, *Tomocerus minor* Lubb. in New Zealand and *T. vulgaris* from Tasmania, this above species is the first indigenous one to be described from the Southern Hemisphere.

## ENTOMOBRYA TERMITOPHILA Schött., 1917,

var. *clarki*, nov.

(Text fig. 1, k.)

Differs from the typical form in that the intensely black bands on abdominal segments II and III extend completely over the latter, while the meso- and metathoracic and fourth abdominal segments are also strongly but not intensely pigmented.

*Locality*—Two specimens from an ants' nest at Fern Tree Gully, Victoria, in January, 1937 (H. W.).

## ENTOMOBRYA CLITTELARIA Guthrie, 1902.

In garden leaf-mould, Hobart, Tasmania, July, 1937 (J. W. E.).

*Acanthurella halei*, sp. nov.

(Text fig. 1, l.)

*Description*—Length, 1.7 to 2.3 mm. Colour, rather denuded of scales, yellowish, with dark eye patches and light bluish pigmentation on antennae, tibiae, base of manubrium and in small patches laterally. Eyes, eight on each side. Antennae two and a half times as long as head diagonal, ratio of segments = 10 : 20 : 18 : 27. Ratio of lengths of head: th. II : III : abd. I : II : III : IV : V : VI = 25 : 25 : 15 : 15 : 15 : 15 : 50 : 10 : 5. Claws with three strong teeth in distal half of inner margin and two basal outer lateral teeth; empodial appendage pointed, reaching second inner distal tooth; tibiotarsal spatulate hair fine. Furca long, reaching ventral tube, ratio of manubrium to mucrodens = 40 : 45, mucro bidentate with basal spine, dentes with a row of short simple spines.

*Locality*—Type specimen from Mount Chambers Gorge, Flinders Range, South Australia, May 30, 1937 (H. M. Hale); other specimens from Deep Gorge, Nepabunna, Flinders Range, South Australia, May 24, 1937 (H. M. H.).

*Remarks*—This genus has not been previously recorded from Australia.

## SIRA JACOBSONI Börner, 1913.

= *Sira tricincta* Schött, 1917.

Schött's Queensland species is undoubtedly synonymous with the Javanese species described by Börner.

## MESIRA FLAVOCINCTA Schött, 1917.

Several typical specimens from Lenah Valley, Tasmania, collected by Mr. V. V. Hickman, May 19, 1937.

## LEPIDOCYRTUS NIGROFASCIATUS Womersley, 1934.

Two specimens referable to this species were collected by Mr. H. M. Hale under stones in Deep Gorge, Nepabunna, Flinders Range, South Australia, May 24, 1937.

## LEPIDOCYRTINUS DOMESTICUS Börner.

A single specimens of this European species, which is a well-known inhabitant of Museums and Art Galleries, was found by Miss J. Cameron on a laboratory bench in the South Australian Museum, Adelaide, South Australia, 1937. Two other specimens were taken later, also in the Museum.

## PERICRYPTA LINEATA Womersley, 1934.

As a result of having received a lot more material from Tasmania, it is now evident that this species is an extremely variable one and that those forms which I described in 1936 under the name of *P. tasmaniae* and its varieties are all variations of the above. In addition to these another colour form is here described.

var. *tristriata*, nov.

Differs from other forms in that the ground colour is of a bright yellowish with a dark longitudinal stripe for the whole length of the dorsal surface, and on each side with another dark stripe running from abdomen II to the apex. There are no other markings of any kind.

*Locality*—Risdon, Tasmania, May 19, 1937 (V. V. H.).

The other forms have also been received recently from the following localities collected by Mr. V. V. Hickman:—

*P. lineata* Wom., 1934, Risdon, Tasmania, May 19, 1937.

*P. lineata* v. *fasciata* Wom., 1936, Risdon, Tasmania, May 19, 1937.

*P. lineata* v. *maculata* Wom., 1936, Risdon, Tasmania, May 19, 1937, Lenah Valley, Tasmania, May 26, 1937.

*P. lineata* v. *tasmaniae* Wom., 1936, Risdon, Tasmania, May 19, 1937; Lenah Valley, Tasmania, May 26, 1937.

## SYMPHYPLEONA.

*Arrhopalites gloriosa*, sp. n.

(Text fig. 1, m-o.)

*Description*—Length, 0.6 mm. Colour on dorsum and to half way down the sides orange, below this black; head blackish with yellow patch between the eyes, antennae dark. Antennae half as long again as head, segment IV with 7-8 subdivisions, III with indistinct peg-like organ. Eyes, eight on each side on dark patches. Furca with mucro and dens as figured. Claws and empodial appendage as in figure 1, o, latter with short subapical bristle on all legs. Clavate tibiotarsal hairs absent. Clothing of sparse fine setae, somewhat longer posteriorly. Bothriotrichiae not observed.

*Locality*—Collected by the writer from under a log at Fern Tree Gully, Victoria in January, 1937. It differs from all known species in the colouration.